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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,922	08/04/2003	Moungi G. Bawendi	14952.0274 C1 D1/MIT 8096	4946
27890	7590	05/05/2010	EXAMINER	
STEPTOE & JOHNSON LLP 1330 CONNECTICUT AVENUE, N.W. WASHINGTON, DC 20036			STEELE, AMBER D	
			ART UNIT	PAPER NUMBER
			1639	
			MAIL DATE	DELIVERY MODE
			05/05/2010	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/632,922		BAWENDI ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	AMBER D. STEELE		1639	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on April 23, 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3, 12-13, 26-27, 31-33, and 37-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 12, 13, 26, 27, 31-33 and 37-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____.   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____.  | 6) <input type="checkbox"/> Other: _____.                                   |

### **DETAILED ACTION**

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

#### ***Status of the Claims***

2. Claims 1-39 were originally filed on August 4, 2003.

The amendment to the claims received on April 27, 2006 amended claims 1, 26, and 37.

The amendment to the claims received on October 17, 2006 amended claims 1, 26, and 37 and canceled claims 4-11, 14-25, 28-30, and 34-36.

The amendment to the claims received on December 4, 2007 amended claims 1, 26, and 37.

The amendment to the claims received on June 19, 2008 changed the status identifiers only.

The amendment to the claims received on March 26, 2009 amended claims 1 and 26.

The amendment to the claims received on April 23, 2010 changed the status identifiers only.

Claims 1-3, 12-13, 26-27, 31-33, and 37-39 are currently pending and under consideration.

#### ***Priority***

3. The present application claims status as a DIV of 09/397,432 filed September 17, 1999 (now U.S. Patent 6,602,671) which is a CIP of 09/160,458 filed September 24, 1998 (now U.S. Patent 6,617,583) and claims benefit of 60/101,046 filed September 18, 1998.

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4. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 121 as follows:

The later-filed application must be an application for a patent for an invention which is also disclosed in the prior application (the parent or original nonprovisional application or provisional application). The disclosure of the invention in the parent application and in the later-filed application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. 112. See *Transco Products, Inc. v. Performance Contracting, Inc.*, 38 F.3d 551, 32 USPQ2d 1077 (Fed. Cir. 1994).

The disclosure of the prior-filed applications, application 09/160,458 and provisional application 60/101,046 fail to provide adequate support or enablement in the manner provided by the first paragraph of 35 U.S.C. 112 for one or more claims of this application. Neither U.S. application 09/160,458 nor provisional application 60/101,046 teach alloys. Therefore, the priority date for the presently claimed inventions is September 17, 1999 (i.e. filing date of 09/397,432).

#### ***Invention as Claimed***

5. A library of compounds wherein each compound in the library is bound to an individual support, each support having associated therewith more than one population of semiconductor nanocrystals, each population having a distinct characteristic spectral emission, wherein each nanocrystal comprises a Group II-VI semiconductor, a Group III-V semiconductor, a Group IV semiconductor, or an alloy of ZnS, ZnSe, ZnTe, CdS, CdSe, CdTe, HgS, HgSe, HgTe, MgTe,

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GaN, GaP, GaAs, GaSb, InN, InP, InAs, InSb, AlAs, AlP, AlSb, AlS, Ge, Si, or Pb and variations thereof.

### **Withdrawn Rejections**

6. The rejection of claims 1-3, 12-13, 26-27, 31-33, and 37-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention is withdrawn upon further consideration.

7. The rejection of claims 1, 3, 12, 13, 26, 27, 32, 33, 37, and 39 are rejected under 35 U.S.C. 102(e) as being anticipated by Frankel U.S. Patent 6,096,496 filed June 19, 1997 is withdrawn upon further consideration.

8. The rejection of claims 1-3, 12-13, 26-27, 31-33, and 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frankel U.S. Patent 6,096,496 filed June 19, 1997 and Dabbousi et al., 1997, (CdSe)ZnS Core-Shell Quantum Dots: Synthesis and Characterization of a Size Series of Highly Luminescent Nanocrystallites, J. Phys. Chem. B, 101: 9463-9475 is withdrawn upon further consideration.

9. The rejection of claims 1-3, 12-13, 26-27, 31-33, and 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frankel U.S. Patent 6,096,496 filed June 19, 1997 and Weiss et al. U.S. Patent 6,927,069 (effective filing date of July 8, 1999 or September 25, 1997) is withdrawn upon further consideration.

### **New Rejections**

#### ***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1-3, 12-13, 26-27, 31-33, and 37-39 are rejected under 35 U.S.C. 102(e) as being anticipated by Chee et al. U.S. Patent 6,544,732 filed May 20, 1999.

For present claims 1-3, 12-13, 26-27, 31-33, and 37-39, Chee et al. teach libraries or populations of compounds comprising compounds bound to a support wherein each support has more than one population of semiconductor nanocrystals associated therewith wherein the semiconductor nanocrystals can be CdSe, InP, InAs, GaAs, CdS, etc.; the semiconductor nanocrystals can have a core/shell structure; the semiconductor nanocrystals have an optical signature; the support is a bead, fiber, etc. which is made of glass, polystyrene, etc.; the compound is a polypeptide, etc. (please refer to the entire specification particularly the abstract; columns 3-15; claims 1-18).

Therefore, the presently claimed invention is anticipated by the teachings of Chee et al.

12. Claims 1-3, 12-13, 26-27, 31-33, and 37-39 are rejected under 35 U.S.C. 102(e) as being anticipated by Weiss et al. U.S. Patent 6,207,392 (filed March 1, 1999; effective filing date of November 25, 1997).

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For present claims 1-3, 12-13, 26-27, 31-33, and 37-39, Weiss et al. teach semiconductor nanocrystal compounds comprising one or more semiconductor nanocrystals, one or more linking agents, and optionally an affinity molecule wherein the semiconductor nanocrystal can be encased in glass or the semiconductor nanocrystals can be within pores of carriers (i.e. support) and wherein the semiconductor nanocrystals can be Group II-VI, Group III-V, Group IV, etc.; the semiconductor nanocrystals can have a core/shell configuration, the support can be glass, etc.; the semiconductor nanocrystals emit light; and the linking agent and affinity molecules can be chemicals, proteins, polypeptides, etc. (please refer to the entire specification particularly the abstract; Figures 1-4; columns 2, 4-14).

Therefore, the presently claimed invention is anticipated by the teachings of Weiss et al.

### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bruchez et al. U.S. Patent 6,274,323.

### ***Future Communications***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMBER D. STEELE whose telephone number is (571)272-5538. The examiner can normally be reached on Monday through Friday 9:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Low can be reached on 571-272-0951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Amber D. Steele/  
Primary Examiner, Art Unit 1639